

# HP OpenView Select Identity

Connector (with BSH Scripts) for Solaris

Connector Version: 1.0

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## Installation and Configuration Guide

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- Commons-collections
- Commons-logging
- Commons-digester
- Commons-httpclient
- Element Construction Set (ecs)
- Jakarta-poi
- Jakarta-regexp
- Logging Services (log4j)

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- JasperReports developed by SourceForge
- iText (for JasperReports) developed by SourceForge
- BeanShell
- Xalan from the Apache XML Project
- Xerces from the Apache XML Project
- Java API for XML Processing from the Apache XML Project
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- JavaMail from SUN Reference Implementation
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# 1 Introduction

This chapter gives an overview of the HP OpenView Select Identity connector for Solaris 9. An HP OpenView Select Identity connector allows you to provision users and manage identities on Solaris 9 system. At the end of this chapter, you will be able to know about:

- the benefits of HP OpenView Select Identity
- the role of a connector
- the connector for Solaris 9

## About HP OpenView Select Identity

HP OpenView Select Identity (OVSI) provides a new approach to identity management. It helps you manage the entire identity lifecycle of an enterprise application. By using OVSI, you can automate the process of provisioning and managing user accounts and access privileges across platforms, applications, and corporate boundaries. OVSI communicates with the enterprise information system through connectors, and automates the tasks of identity management. The enterprise information system, which is also referred to as **resource**, can be a database, a directory service, or an ERP package, among many others.

## About Connectors

You can establish a connection between a resource and OVSI by using a connector. A connector is resource specific. It is installed on the system where OVSI is installed. The combination of OVSI and connector helps you perform a set of tasks on the resource to manage identity. A connector can be **unidirectional** or **bidirectional**. A unidirectional connector helps you manage identities from OVSI, but if any change takes place in resource, it cannot communicate that back to OVSI. On the other hand, a bidirectional connector can reflect the changes made on resource back to OVSI. This property of bidirectional connectors is known as **reverse synchronization**.

## About Solaris 9 Connector with BeanShell Scripts (BSH)

The Solaris 9 connector with BeanShell scripts (BSH) enables HP OpenView Select Identity to perform the following tasks on Solaris 9 servers:

- Add, update, and remove users
- Enable and disable users

- Verify a user's existence
- Change user passwords
- Reset user passwords
- Retrieve all entitlements
- Retrieve a list of supported user attributes
- Grant and revoke entitlements to and from users

The Solaris 9 connector with BSH is a unidirectional connector and pushes changes made to user data in the Select Identity database to a target server. The mapping file controls how Select Identity fields are mapped to Solaris 9 fields.



## 2 Installing the Connector

Solaris 9 connector with BSH comprises of a Resource Adapter Archive (RAR) file, a Schema file, and a BSH scripts file.

**Table 1 Solaris 9 Connector Files**

Serial Number	File Name	Description
1.0	UnixBshConnector.rar	This is the Resource Adapter Archive (RAR) file of the connector. It contains the connector binary files.
2.0	unixBshSchema.jar	It contains the mapping file.
3.0	unix-bsh-scripts.zip	It contains the scripts.

### System Requirements

The Solaris 9 connector with BSH is supported in the following environment:

**Table 2 Platform Matrix for Solaris 9 connector**

Select Identity Version	Operating System, Database, and Application Server Platforms
4.0	All the platforms, which support Select Identity 4.0, support Solaris 9 connector with BSH.

The connector supports two ways of communicating with UNIX:

- by using Secure Shell (SSH)
- by using Telnet

If you are using SSH method you must ensure that the SSH daemon is running on the Solaris box to which you will provision users by using the connector

# Installation Procedure

Perform the following tasks to achieve successful installation of Solaris 9 connector with BSH.

- 1 Extract the Contents of Schema File
- 2 Deploy the Connector on Application Server
- 3 Install the Scripts on the Application Server
- 4 Create Known Hosts File for Solaris with SSH
- 5 Configure the Connector with OVSI

## Extract the Contents of Schema File

Create a subdirectory in the OVSI home directory on OVSI system. Extract the contents of `unixBshSchema.jar` file to this subdirectory. Ensure that the `CLASSPATH` environment variable in the application server startup script references this Schema subdirectory.

## Deploy the Connector on Application Server

You must deploy the RAR file (`UnixBshConnector.rar`) of the connector on an application server. Before deploying the RAR file, you must copy it to a local directory from the connector CD. Refer to *HP OpenView Select Identity Deployment Guide* for more information on deploying a connector on application server.

## Install the Scripts on the Application Server

The Solaris 9 connector with BSH uses a Java-based scripting called BeanShell (<http://www.beanshell.org>). The BeanShell scripts control the interactions between the UNIX machine and the OVSI server.

Copy the `unix-bsh-scripts.zip` file from the OVSI connector CD and extract the scripts onto a local folder where OVSI is installed. You must enter the location of this folder in Script Location field while entering the resource configuration parameters in Resource Access Information page.

## Create Known Hosts File for Solaris with SSH

If you use SSH, you must create a text file (for example, `known_hosts.txt`) that contains the names and public keys of all the trusted Solaris machines to which you can provision users. You must provide the name of this file Ssh Known Hosts field while entering resource access parameters..

One way of obtaining this information is to use PuTTY (`putty.exe`) to connect to the machine. When you connect to the Solaris 9 machine for the first time by using PuTTY, a pop up appears. This pop up displays the host key of the machine. You can connect to trusted Solaris machines individually from a Windows system by using PuTTY, capture this information, and put it in a text file, which can be used as known hosts file. PuTTY can be downloaded from [www.putty.nl/download](http://www.putty.nl/download).



Sample contents of known\_hosts.txt file:

```
16.73.17.88 ssh-rsa 1024 57993be4462bc4a536e8e58cad40f5ae
16.73.17.91 ssh-rsa 1024 664c2580121e2e06f702c195ae4e8885
```

## Configure the Connector with OVSI

After deploying the connector to an application server, you must configure it with OVSI. To achieve successful configuration, you must perform the following steps.

- 1 Add a new connector – Add a new connector on OVSI. Refer to *HP OpenView Select Identity Connector Deployment Guide* for information on adding a new connector. While adding the connector, under Current Resource Connectors section in Manage Connectors page, do the following:
  - In the Connector Name text box, specify a name for the connector.
  - In the Pool Name text box, enter **eis/UnixBshConnector**.
  - Under Mapper Available section, select **No**.
- 2 Add a resource — You must add a resource to OVSI that uses the newly created connector. Refer to *HP OpenView Select Identity Connector Deployment Guide* for the instructions to achieve this. While entering the resource parameters for Solaris 9 connector with BSH, refer to the table below.

**Table 3 Resource Configuration Parameters**

Field Name	Sample Values	Description
Resource Name	<i>Solaris9_Server</i>	Name given to the resource.
Resource Type	<i>Solaris9</i>	The connector that was deployed in <a href="#">step 1</a> on page 11.
Authoritative Source	<i>No</i>	Whether this resource is a system that is considered to be the authoritative source for user data in your environment. You must specify <b>No</b> because the connector cannot synchronize account data with the Select Identity server.
Host Name	<i>server.company.com</i>	IP Address or host name of the Solaris 9 machine.
User Name	<i>ovsi (Name must be smaller than 8 characters for UNIX)</i>	Login account on the Solaris9 machine.
User Password	<i>Password123</i>	Password for the User Name <i>ovsi</i> .
Admin Password	<i>rootPassword</i>	Password of the super user that has the privileges to provision users on this system
Unix Type	<i>Solaris</i>	The type of UNIX operating system.
Use ssh	<i>false or true</i>	Whether to use SSH when connecting with the resource. If you specify false, telnet is used.
Ssh known hosts	<i>known_hosts.txt</i>	This is needed only for SSH communication and indicates the name of a text file on the application server that contains the list of host and their host keys for the SSH protocol.
Port	<i>22</i>	The TCP/IP port to use to connect to the server. This is optional and if you use SSH, the default is 22. Otherwise, the default is 23.
Script Location	<i>connectorScripts/Solaris9ssh/</i>	Location of the bean shell scripts that are used by the connector. These are the ones extracted from <code>unix-bsh-scripts.zip</code> file.

**Table 3 Resource Configuration Parameters**

Field Name	Sample Values	Description
Timeout (sec)	300	Number of seconds to wait for a request to complete.
Max Retries	5	Number of times the request has to be retried upon a connection timeout given in the above parameter.
Mapping File	<i>UnixConnector.xml</i>	Location of the connector mapping file used to map resource attributes to Select Identity attributes.

- 3 Map the attributes — You must map the OVSI attributes to the attributes of the resource. Refer to *HP OpenView Select Identity Connector Deployment Guide* for information on mapping attributes. While mapping the attributes, refer to the following table for resource specific mapping information.

**Table 4 Solaris 9 Mapping Information**

Select Identity Resource Attribute	Connector Attribute	Attribute on Solaris 9 Resource	Resource Description
User Name	username	username (login argument)	UNIX logon name.
Password	password	password	Logon password
Full Name	comment	comment	Comment section in / etc/passwd
Directory	directory	home directory	User's home directory
Shell	shell	shell	UNIX logon shell
defaultgroup	defaultgroup	login primary group	Default group membership
Description**	description	description	A value from 1-100 alphanumeric characters in length.

- 4 Associate the newly added resource to a service. Refer to the chapter *Service Studio* of *HP OpenView Select Identity Administrator Guide* for more information on service.



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## 3 Uninstalling the Connector

If you want to uninstall a connector from OVSI, perform the following steps:

- Remove all resource dependencies.
- Delete the connector from OVSI Connectors page.
- Delete the connector from application server.

See *HP OpenView Select Identity Connector Deployment Guide* for more information on deleting the connector from OVSI and application server.





# A Understanding the Installed Scripts

This connector uses a Java-based scripting engine called BeanShell (<http://www.beanshell.org>). The BeanShell scripts control the interactions between the Solaris 9 machine and the Select Identity server. There are some special variables and classes available to the BeanShell script when executing in the Solaris 9 connector. Each is described in this chapter.

The bean shell scripts control how the interaction with the UNIX box is to be made. You can customize the scripts if you want to customize the interaction for provisioning. The `comon.inc` script has all the common variables and methods. Other individual scripts have operation specific variables and methods.

**Table 5** Scripts in `unix-bsh-scripts.zip`

Script Name	Description	Parameters Passed
<code>common.inc</code>	Commonly used variables and methods. Defines the UNIX prompt that the connector expects and the UNIX commands to be used for provisioning	
<code>dotest.bsh</code>	Test the initial connectivity to Solaris, including login as regular user, super user and check for the existence of <code>/etc/passwd</code> file	<code>login</code> , <code>loginPassword</code> , <code>rootPassword</code> , <code>connection_timeout</code>
<code>finduser.bsh</code>	Checks for existence of user in Solaris	<code>username</code> , <code>connection_timeout</code>
<code>adduser.bsh</code>	Adds a new user to Solaris by preparing all the options needed for the UNIX command	<code>args</code> (semi-colon-separated name=value pairs), <code>username</code> , <code>connection_timeout</code>
<code>modifyuser.bsh</code>	Modify the comment, shell, primary or secondary groups of the user	<code>args</code> (semi-colon-separated name=value pairs), <code>username</code> , <code>connection_timeout</code>
<code>expirepasswd.bsh</code>	Locks the password entry for the user	<code>username</code> , <code>connection_timeout</code>
<code>changepasswd.bsh</code>	Changes the user's password	<code>username</code> , <code>password</code> , <code>connection_timeout</code>

**Table 5 Scripts in unix-bsh-scripts.zip**

<b>Script Name</b>	<b>Description</b>	<b>Parameters Passed</b>
changestatus.bsh	Change the status of the user	args (semi-colon-separated name=value pairs), username, connection_timeout
deleteuser.bsh	Delete the user	username, connection_timeout
findgroup.bsh	Get details of a UNIX group	group, connection_timeout
listgroups.bsh	Get all UNIX groups, Get groups of a specific user, Get users of a specific group	connection_timeout, username, connection_timeout, gname, connection_timeout
listusers.bsh	Get all users in system	connection_timeout